

PATENT

For: **INTERFACE DEVICE AND METHOD FOR INTERFACING INSTRUMENTS
TO MEDICAL PROCEDURE SIMULATION SYSTEMS**

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

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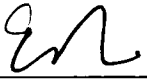
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Dated: July 13, 2004

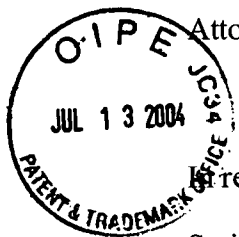
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Respectfully submitted,
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By:



Erik B. Milch
Reg. No. 42,887



Attorney Docket No. **IMMR-023/03US**

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re application of David ALEXANDER et al.

Serial No.: 10/657,079

Examiner: Unassigned

Filed: September 9, 2003

Art Unit: 3739

Confirmation No.: 9176

For: **INTERFACE DEVICE AND METHOD FOR INTERFACING INSTRUMENTS
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**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §1.97(b)**

In accordance with the duty of disclosure set forth in 37 C.F.R. §1.56, Applicant(s) hereby submits the following information in conformance with 37 C.F.R. §§1.97 and 1.98.

- ☒ Pursuant to 37 C.F.R. §1.98, a copy of each document cited in the attached Form PTO/SB/08 (1 of 2) is provided on the enclosed CD.
- ☒ No copies of the publications listed on the attached Form PTO/SB/08A (2 of 2) are being provided pursuant to 37 C.F.R. §1.98(d) because the publications were previously cited by or submitted to the Office in prior Application Serial No. 09/237,969, filed January 27, 1999, to which the above-identified application claims priority under 35 U.S.C. §120.
- ☐ No copies of any U.S. patents or U.S. patent application publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98 because this application was filed after June 30, 2003.
- ☐ Publication(s) ___ listed on the attached Form PTO/SB/08A were cited in a foreign search or examination report corresponding to ___ application serial no. and mailed on ___.
- ☐ Enclosed is a copy of a non-English publication(s) ___. Pursuant to §609 of the M.P.E.P., Applicant submits the attached foreign search or examination report, which cites such non-English language publication(s).

- ☐ Enclosed is a copy of a non-English publication(s) ___. English language publication ___ (copy enclosed) claims priority from this non-English publication.
- ☐ Enclosed is an explanation of non-English publication(s) ___ for which an English translation is not available.
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This Information Disclosure Statement is filed within any one of the following time periods:

- ☐ within three months from the filing date of this national application other than a CPA under 37 C.F.R. § 1.53(d);
- ☐ within three months from the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in this international application;
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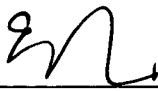
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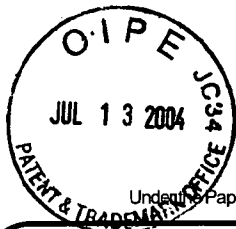
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(1 of 2)

PTO/SB/08A (10-01)
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 1 of 3

Complete if Known

Application Number	10/657,079
Filing Date	September 9, 2003
First Named Inventor	David Alexander
Art Unit	3739
Examiner Name	Unassigned
Attorney Docket Number	IMMR023/03US

U.S. PATENT DOCUMENTS					
Examiner	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
		6,422,941	7/23/2002	Thorne et al.	
		6,160,489	12/12/2000	Perry et al.	
		6,111,577	8/29/2000	Zilles et al.	
		6,086,528	07/11/2000	Adair	
		5,817,107	10/6/1998	Schaller	
		5,690,582	11/25/1997	Wright et al.	
		5,575,761	11/19/1996	Hajianpour	
		5,437,607	8/1/1995	Taylor	
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		2,972,140	2/14/1961	Hirsch	

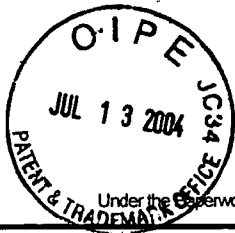
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
		JP	H2-185278		7/19/1990	Taito Corporation	
		JP	H4-8381		1/13/1992	Epoch Co. and Key- Planning Co.	
		JP	H7-24147		1/27/1995	Sega Corporation	
		JP	H5-192449		8/3/1993	Taito Corporation	

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¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Sheet **2** of **3****Complete if Known**

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

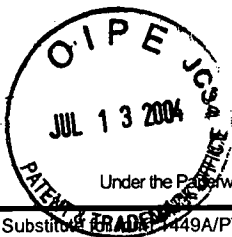
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
		WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.
		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
		KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," <i>PRESENCE</i> , 4(4):387-402, Harvard Univ., 1995.
		AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," DSC-Vol. 55-1, <i>Dynamic Systems and Control</i> : Volume 1, ASME 1994.
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 nd Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
		"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
		OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," <i>Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95</i> , Seoul, Korea, 21-24 August 1995.
		KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414, 1995,
		LAKE, "Cyberman from Logitech," at http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html , 1994.
		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet **3** of **3**

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Application Number	10/657,079
Filing Date	September 9, 2003
First Named Inventor	David Alexander
Art Unit	3739
Examiner Name	Unassigned
Attorney Docket Number	IMMR023/03US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

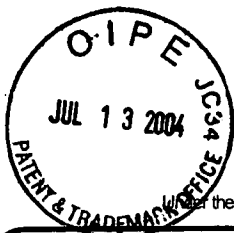
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).	
		ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.M./ SCANNELL, "Taking a Joystick Ride," <i>Computer Currents</i> , Boston Edition, Vol. 9, No. 11, November 1994	
		YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," <i>Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems</i> , Raleigh, NC, July 7-10, 1992	
		NOLL, "Man-Machine Tactile," <i>SID Journal</i> , July/August 1972 Issue.	
		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance In Telepresence Tasks," <i>Ph.D. Dissertation</i> , Stanford University, June 1994.	

Examiner Signature	/Timothy Musselman/	Date Considered	06/14/2010
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		Filing Date	September 9, 2003		
		First Named Inventor	David Alexander		
		Art Unit	3739		
		Examiner Name	Unassigned		
Sheet	1	of	12	Attorney Docket Number	IMMR023/03US

U.S. PATENT DOCUMENTS					
Exam iner Initial s*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM- DD-YYYY
		Number	Kind Code ² (if known)		
		6,223,100		Green	04-2001
		5,995,738		DiGioia, III et al.	11-30-1999
		5,967,790		Strover et al.	10-19-1999
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		5,945,056		Day et al.	08-31-1999
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		5,891,131		Rajan et al.	04-06-1999
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		5,882,206		Gillio	03-16-1999
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		5,825,941		Limford et al.	10-20-1998
		5,825,308		Rosenberg	10-20-1998
		5,821,920		Rosenberg et al.	10-13-1998
		5,807,115		Hu	09-15-1998
		5,805,140		Rosenberg et al.	09-08-1998
		5,800,179		Bailey	09-01-1998
		5,800,178		Gillio	09-01-1998
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		5,791,908		Gillio	08-11-1998
		5,785,630		Bobick, et al.	07/28/1998
		5,769,640		Jacobus et al.	06-23-1998
		5,768,134		Swaelens et al.	06-16-1998
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		5,724,264		Rosenberg et al.	03-03-1998
		5,722,836		Yunker	03-03-1998

Examiner Signature	Date Considered
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		Number	Kind Code ² (if known)		
		5,721,566		Rosenberg et al.	02-24-1998
		5,704,791		Gillio	01-06-1998
		5,701,140		Rosenberg et al.	11-23-1997
		5,691,898		Rosenberg et al.	11-25-1997
		5,687,259		Linford	11-11-1997
		5,682,886		Delp et al.	11-04-1997
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		5,629,594		Jacobus et al.	05-13-1997
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		5,609,485		Bergman et al.	03-11-1997
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		5,438,529		Rosenberg et al.	08-01-1995
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		5,354,202		Moncrief et al.	10-11-1994
		5,343,871		Bittman et al.	09-06-1994

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		5,338,198		Wu et al.	08-16-1994
		5,334,027		Wherlock	08/02/1994
		5,333,106		Lanpher et al.	07-26-1994
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		Filing Date	September 9, 2003
		First Named Inventor	David Alexander
		Art Unit	3739
		Examiner Name	Unassigned
Sheet 4 of 12	Attorney Docket Number	IMMR023/03US	

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Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
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		Des. 233,238		Reid et al.	10-15-1974

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/657,079
		Filing Date	September 9, 2003
		First Named Inventor	David Alexander
		Art Unit	3739
		Examiner Name	Unassigned
Sheet 12 of 12	Attorney Docket Number	IMMR023/03US	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
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	ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.M./	
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